

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Kay-Yut Chen	§	Art Unit:	3623
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Serial No.:	09/944,969	§		
		§	Examiner:	Linda Mary Krisciunas
Filed:	August 30, 2001	§		
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For:	Method and Apparatus for	§	Atty. Dkt. No.:	10004567-1
	Modeling Business Processes	§		(HPC.0328US)

**Mail Stop Amendment**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

SUPPLEMENTAL DECLARATION UNDER 37 C.F.R. § 1.131


Dear Sir:

I, Kay-Yut Chen, state as follows:

1. I am the inventor of the above-referenced application.
2. The document attached as Exhibit A is a true and correct copy of the Invention Disclosure pertaining to subject matter described and claimed in the above-referenced patent application, which I submitted to the legal department of the Hewlett-Packard Company prior to March 8, 2001.
3. The page of Exhibit A bearing the number "3" at its bottom describes a "Business Model Definition Process," which provides a framework having several listed elements, including: (a) decision making entities; (b) possible decision space; (c) decision making process tree; (d) information set; (e) outcome function; and (f) payoff function.
4. The page of Exhibit A bearing the number "2" at its bottom shows a figure that is substantially the same as Figure 1 of the present application.
5. The page of Exhibit A bearing the number "4" at its bottom describes a "Script Translation Process" (in section 3). The Script Translation Process translates the output of the Business Model Definition Process and a Business Model Calibration Process into a software representation that is stored as scripts.

Date of Deposit: November 27, 2006

I hereby certify under 37 CFR 1.8(a) that this correspondence is being deposited with the United States Postal Service as **first class mail** with sufficient postage on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313.

  
Rose Marie Henderson

6. The page of Exhibit A bearing the number “4” at its bottom, in section 4, also describes taking the generated scripts and providing a simulation that resembles the original business environment, where the simulation can be interactive with players that are human beings.

7. The page of Exhibit A bearing the number “1” in the section titled “Problems Solved by Invention,” states that a user can define different scenarios under which the simulation can be conducted to provide different comparisons and evaluations.

8. The above establishes conception of the present invention prior to March 8, 2001. As an example of how the cited passages of Exhibit A disclose the invention, a claim chart is provided below for claim 1 that maps elements of claim 1 to teachings of the Invention Disclosure in Exhibit A:

Claim 1	Exhibit A: Invention Disclosure
A method of determining an economic impact of business policies, comprising the steps of:	<p>The Business Process Modeler (BPM) translates a business process or a business model into a software simulation. This simulation can be interactive with human subjects. Furthermore, a user can define different scenarios under which the simulation can be conducted.</p> <p>The BPM can be used to generate data under different business model and hence provides scientific evaluations and comparisons of different business models. These comparisons and evaluations are then used to make informed decisions of business variables.</p> <p>Exhibit A, p. 1, Section B</p>
defining a plurality of players including an associated set of rules defining a possible decision space, a decision-making process tree, an information set, an outcome function, and a payoff function for each player;	Exhibit A, Fig. 1: Layout of Business Process Modeler (“Business Information” block and “Business Model Definition Process” block); see also Exhibit A, p. 3, Section D.1 (discussion of “Decision Making Entities,” “Possible Decision Space,” “Decision Making Process Tree,” “Information Set,” “Outcome Function,” “Payoff Function”).
translating the player definitions into at least one codified script; and	Exhibit A, p. 4, Section D.3 (discussion of “Script Translation Process”)

executing the at least one codified script, wherein a result of the outcome and payoff functions at the end of execution of a script stage determines the economic impact of the business policies defined by the rules.	Exhibit A, p. 4, Section D.4 (discussion of "Simulation and Experimentation Module (MUMS)").
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9. Moreover, the subject matter of the Invention Disclosure (Exhibit A) referred to above was implemented in software prior to March 8, 2001. *See* Exhibit A, p. 4, Section D.4 (which refers to implementation of the invention in a Simulation and Experimentation Module (MUMS) software system). The attached Exhibit B lists various software modules that implement the MUMS system, which includes the subject matter of the Invention Disclosure (Exhibit A) referred to above.

10. The software modules (listed in Exhibit B) of the MUMS system were successfully executed in a computer prior to March 8, 2001. I determined at that time that the MUMS system worked for its intended purpose. Use of the MUMS system depicted in Exhibit B resulted in reduction to practice of the claimed invention. For example, use of the MUMS system depicted in Exhibit B implemented a method according to claim 1, including:

A method of determining an economic impact of business policies, comprising the steps of:

- a) defining a plurality of players including an associated set of rules defining a possible decision space, a decision-making process tree, an information set, an outcome function, and a payoff function for each player;
- b) translating the player definitions into at least one codified script; and
- c) executing the at least one codified script, wherein a result of the outcome and payoff functions at the end of execution of a script stage determines the economic impact of the business policies defined by the rules.

As another example, the MUMS system provided an apparatus according to claim 10, including:

An apparatus for determining an economic impact of business policies, comprising:

- a) a business process definition module for defining a plurality of players including an associated set of rules defining a possible decision space, a decision-making process tree, an information set, an outcome function, and a payoff function for each player;
- b) a script translator module for translating the player definitions into codified scripts, wherein the codified scripts define at least one simulation stage; and
- c) a simulation module for executing the codified scripts, wherein a result of the outcome and payoff functions at the end of execution of the at least one script stage determines the economic impact of the business policies.

11. Exhibit C contains the title page and various pages of a document titled "Script Users Guide," which was dated prior to March 8, 2001. The Script Users Guide describes elements of a script used in the MUMS system.

12. Exhibit D is an Installation and Maintenance Guide dated prior to March 8, 2001 that describes installation and maintenance operations for the MUMS software. The Installation and Maintenance Guide was used to install the MUMS software modules in a computer, which software modules were successfully executed prior to March 8, 2001.

13. The first page of the Invention Disclosure (Exhibit A) indicates that results were obtained from successful use of the invention prior to March 8, 2001.

14. Exhibit E is a paper by Gary Charness and Kay-Yut Chen, entitled "Minimum Advertised-Price Policy Rules and Retailer Behavior: An Experiment by Hewlett-Packard" (2002). In the section starting on page 65 of Exhibit E, titled "Experimental Procedure," reference is made to execution of the software that makes up the MUMS system which contained an implementation of the invention. The MUMS system worked for its intended purpose.

15. The MUMS software system was internally released at the assignee, the Hewlett-Packard Company (hereinafter "HP"), in 1999 and later. The MUMS software system released in 1999 included features of claims 1, 2, 4-7, 9-11, 13-15, and 17-21 of the present application. In 1999, the MUMS software system was executed in a lab at HP, based on input information from a business group at HP. Output data was generated based on execution of the MUMS software system that was executed in the lab at HP in 1999. The output data was provided to the business group at HP, which used the output data as one factor, among other factors, in formulating a business decision.

16. The above facts establish completion of my invention (both conception and actual reduction to practice) prior to March 8, 2001.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 11/27/06

  
KAY-YUT CHEN